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THE ECONOMIC IMPACT OF HOMEOPATHIC MANAGEMENT: THE FRENCH EXAMPLE

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OBJECTIVE: Homeopathy is based on the principle of similitude, using at non-toxic doses, in a sick patient, medicinal substances of mineral, plant or animal origin, which, at toxic doses, are capable of triggering in healthy individuals a range of symptoms similar to those observed during the disease under consideration. Homeopathy is mainly employed in cases of ENT disease, anxiety disorders and sleep disorders. Today, in France, about 2 in every 10 physicians prescribe frequently or regularly some sort of homeopathic-based treatment. **METHOD:** hOMEO is a longitudinal, prospective, observational programme. Three hundred patients with rhinitis chronic, treated either by homeopathic (HM) or allopathic management (AM), will be followed during 6 months. In this study, the level of resources used and patient satisfaction will be collected in order to provide confirmation of the economic relevance of reliance on homeopathic management versus allopathic management. **RESULTS:** At inclusion time, both groups expressed the same level of symptoms. There are no differences neither in the number nor in the type of symptoms due to their rhinitis chronic. Three months later, the chronic rhinitis symptoms are resorbed within the same proportion for both groups. None symptoms have been better or badly resorbed the one than the other. At 3 months, the SF-12 score on the physical dimension are the following HM 51.8, AM 47.9 ($p < 0.05$), the inclusion score being comparable between the two groups at inclusion induced that patients treated by a homeopathic management improved their QoL on this dimension. The quarterly cost of care for patients treated with allopathic management (€45.74) is 30% more expensive than the quarterly cost of care for patients treated with homeopathic management (€27). This difference is essentially due to a higher frequency of consultations and a more expensive mean medical prescription with the allopathic management. **CONCLUSION:** Reliance on homeopathic management appears to give rise to an annual reimbursement cost, which is half that induced by allopathic general practitioners.

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IS CISATRACURIUM COST EFFECTIVE FOR NEUROMUSCULAR BLOCKADE IN THE ICU? A MARKOV COMPUTER SIMULATION STUDY

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OBJECTIVES: Care of patients with acute respiratory distress syndrome (ARDS) is challenging and costly. Administering muscle relaxants may facilitate mechanical ventilation and improve oxygenation. After the relaxant is discontinued, some patients have delayed recovery of neuromuscular function, while other patients develop prolonged muscle weakness—acute quadriplegic myopathy syndrome (MYOPATHY). The objective of this study was to examine the incremental cost-effectiveness ratio (ICER) of cisatracurium versus using a traditional steroid based agent—vecuronium. **METHODS:** We designed a Markov ICER computer model. The base case involved a 55-year-old man admitted to the ICU for ARDS and then paralyzed for 3.5 days. Patients were modeled to be in one of the following health states: ICU-intubated, ICU-extubated, hospital ward, long-term care, home, or death. Patient progression was divided into 3.5 day cycles over six months. One trial found the average recovery after cisatracurium to be one hour versus 6 hours with vecuronium. Approximately 27% of ICU patients paralyzed for 3.5 days would be expected to develop MYOPATHY within 7 days. However, it is not evident that cisatracurium reduces this incidence. **RESULTS:** Our modeling predicted the total cost for an ARDS patient to be $58,629. At 6 months: mortality = 43%, patients discharged home = 32%, in-hospital = 8%, and long term care facility = 17%. Using average wholesale prices, cisatracurium costs $599 for 3.5 days, versus $332 for vecuronium. The modeling suggests that cisatracurium is cost-effective (the ICER is < $35,000/QALY) if intubation time is reduced by 7%, or if ICU extubated time is reduced by 1.8%, or if the time the patient is in the ward is reduced by 2.3%. **CONCLUSIONS:** Incremental costs for cisatracurium are a very small portion of the total cost of care for ARDS patients. If cisatracurium use leads to very small reductions in ICU time, or ward length, it becomes a cost-effective intervention.

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ECONOMIC OUTCOMES OF TREATING CHRONIC OBSTRUCTIVE PULMONARY DISEASE WITH INHALED CORTICOSTEROIDS AND LONG-ACTING β-AGONISTS IN A HEALTH MAINTENANCE ORGANIZATION

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OBJECTIVES: There is growing recognition of the public health challenge posed by treating persons with chronic obstructive pulmonary disease (COPD). Although treatment options are limited, observational studies have shown that long-acting beta agonists (LABA) and/or inhaled corticosteroids (ICS) may prolong survival. We investigated the cost-effectiveness of competing strategies for treating COPD. **METHODS:** Subject-level cost and

survival data were extracted from a sample of members enrolled in a large Health Maintenance Organization. Study subjects were defined as persons aged >40 y who, between 1995 and 2000, had at least 2 visits to a physician or one hospital admission with a diagnosis of COPD and at least 90 days exposure to LABA and/or ICS. Categories of costs captured included medications, physician visits, and hospitalizations. Survival was estimated using a parametric regression model. Costs were adjusted for censoring and known prognostic factors, including demographic variables and measures of disease severity. A cost-effectiveness analysis was conducted from a third party payer perspective over a time horizon of 36 months. **RESULTS:** The estimated average survival and costs were: 2.4 life years (LY) (CI: 2.3; 2.5) and $43,900 (95% CI: $38,600; $51,800) for not receiving ICS or LABA; 2.7 LY (CI: 2.6; 2.8) and $36,750 (CI: $29,370; $43,800) for ICS alone; 2.7 LY (CI: 2.6; 2.8) and $44,900 (CI: $38,700; $51,840) for LABA alone; and, 2.8 LY (CI: 2.7; 2.9) and $43,250 (CI: $36,530; $56,900) for subjects treated with both ICS and LABA. The most favorable treatment options were ICS and the combination ICS + LABA. **CONCLUSIONS:** There is an acute need to find cost-effective treatments for persons with COPD. ICS and LABA are currently being tested in randomized trials. If the impact on survival compares to that shown in observational studies, those therapies are likely to be cost-effective in the United States.

RESPIRATORY DISEASES/DISORDERS—Quality of Life/Preference Based Outcomes

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ASSESSMENT OF THE IMPROVEMENTS IN QUALITY OF LIFE POST-LUNG TRANSPLANT: A COMPARISON OF RECIPIENTS VERSUS CANDIDATES

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OBJECTIVES: Lung transplant is increasingly becoming the choice of therapy for several end-stage pulmonary conditions. Factors critical to making decisions for a lung transplant revolve around transplant costs and improvements in health-related quality of life (HRQL) post-transplant. The primary objectives of this study are: a) To compare the HRQL of transplant recipients versus candidates; and b) To compare recipients versus candidates on utilities derived using two methodologies by Nichol et al. (2001) and Brazier et al. (2002). **METHODS:** A survey questionnaire was mailed to 145 lung or heart-lung transplant recipients and 99 candidates awaiting lung transplant at a major University hospital in the Midwestern USA. The questionnaire comprised of instruments such as the SF-36, Center for Epidemiologic Studies Depression (CES-D) Scale, Symptom Distress Scale (SDS), Illness Intrusion Rating Scale (IIRS), Pulmonary Scale (PS), Dyspnea Scale (DS), and Health Status (VAS). T-tests were employed to analyze differences between the two groups on the HRQL measures. **RESULTS:** There were a total of 166 respondents (99 recipients and 67 candidates). Recipients had significantly higher SF-36 PCS scores (39.97 vs. 25.56, $p = 0.001$) and VAS scores (73.30 vs. 49.24, $p = 0.001$) as compared to the candidates. No significant differences were observed between the 2 groups on the SF-36 MCS and CES-D scores. Recipients demonstrated significantly lower levels of dyspnea, pulmonary distress, and illness intrusion in comparison to transplant candidates. Both the methodologies for deriving utilities from the SF-36 yielded higher scores for recipients versus the candidates; Nichol utilities (0.76 vs. 0.69, $p = 0.001$) and Brazier utilities (0.70 vs. 0.63, $p = 0.001$). **CONCLUSIONS:** It was observed that in general recipients had significant improvements in physical health as compared to candidates. The incremental benefit in terms of utilities would be larger when calculated using the Nichol methodology, despite both methodologies being based on the SF-36 and standard gamble. Further research needs focus on the validity of these utilities for purposes of a cost-utility analysis.

PRP25

CULTURAL ADAPTATION AND VALIDATION OF CHILDHOOD ASTHMA QUESTIONNAIRE-C (CAQ-C) IN SINGAPORE

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HRQoL is an important outcome measure for chronic childhood diseases. However, it is infrequently used in Asia due to the difficulty of obtaining appropriately translated and culturally adapted instruments. We adapted the Childhood Asthma Questionnaires C (CAQ-C) previously used in UK and Australia in children aged 11 to 16 years old. **OBJECTIVES:** To culturally adapt and validate a disease specific HRQoL questionnaire, CAQ-C for childhood asthma in Singapore. **METHODS:** CAQ-C was adapted after pre-testing in asthmatic children. Changes to the UK and Australia versions were made to reflect the Singapore educational system, culture, language and climate. A cross-sectional validation was conducted. All consenting asthmatic patients aged 11 years and above attending the Specialist Respiratory Clinic in KK Women's and Children's Hospital participated. Patients with other co-morbidities that could significantly affect their HRQoL were excluded. **RESULTS:** The adapted CAQ-C was validated in 99 patients (41 females and 58 males) with a mean age of 12.84 °Ó1.64 years (range: 10–17 years). More than three quarters completed the questionnaire in 10 minutes or less. The Severity (12 items), Distress (11 items) and Active Quality of Living (4 items) scales had similar internal consistency as the UK and Australian versions (Cronbach's $\alpha = 0.71$–0.85). Our Teenage Quality of Living scale had only 3 items but